

**Notice of Allowability****Application No.**

09/883,275

**Applicant(s)**YAMAZAKI ET AL. *ed***Examiner**

Rip A. Lee

**Art Unit**

1713

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to March 25, 2004.
2. ☒ The allowed claim(s) is/are 1 and 2.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

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### **DETAILED ACTION**

This office action follows a response filed on March 25, 2004. Applicants have amended claim 1 to correct matters of form.

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Jennifer R. Leach on June 14, 2004.

Cancel claims 3-22.

***Allowable Subject Matter***

The following is an examiner's statement of reasons for allowance: Claims 1 and 2 are allowed over the closest reference, U.S. Patent No. 6,458,909 to Spreitzer *et al.*

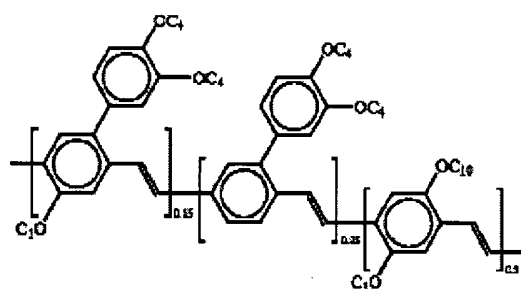
The present invention is drawn to a polymeric fluorescent substance having a number average molecular weight of  $5 \times 10^4$  to  $1 \times 10^8$  containing repeat units of general formulae, designated (1) and (3). Notably, the polymer contains 0.1 to 15 mole % of repeat units of general formula (1).

Spreitzer *et al.* discloses a copolymer, designated A9, containing 18 wt % (22 mol %) of an aryl substituted poly(*p*-arylenevinylene) unit corresponding to general formula (1). The prior art material differs from that of the present invention in that the mole fraction of aryl substituted poly(*p*-arylenevinylene) unit is higher than that presently claimed. In fact, polymers of the invention are shown to have considerably higher content of aryl substituted poly(*p*-arylenevinylene) units than that of A9. As such, there is little motivation or suggestion to fabricate materials containing the requisite repeat units in the claimed range of 0.1 to 15 mole %. Therefore, the present claims is neither anticipated nor obvious over the teachings of Spreitzer *et al.*

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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The following reference made of record but not relied upon is considered pertinent to the Applicant's disclosure. Example C6 of U.S. 2001/0041269 to Berntsen *et al.* discloses a fluorescent polymer having the structure reproduced below. Here, the polymer contains 15 mole % of aryl substituted poly(*p*-arylenevinylene) units.



The filing date of the reference does not precede Applicant's priority date.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

ral

June 14, 2004



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